

Dividing Polynomials - Box Method

Divide the following by box method.

$$1) \frac{x^4 + 7x^3 + 15x^2 + 13x + 4}{x^2 + 2x + 1} =$$

x^2			
$2x$			
1			

$$2) \frac{3m^4 - 5m^3 - 15m^2 - 9m - 10}{m^2 - 2m - 5} =$$

m^2			
$-2m$			

$$3) \frac{6v^4 - 7v^3 + 19v^2 - 10v + 16}{3v^2 - 2v + 4} =$$

$3v^2$		
$-2v$		
4		

$$\frac{16}{3} =$$

$$5) \frac{8k^4 + 2k^3 + 10k^2 - 19k - 2}{4k^2 - 3k - 2} =$$

$4k^2$			
$-3k$			
-2			

$$\frac{1p - 8}{3} =$$

p^2			
$5p$			
-8			

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Dividing Polynomials - Box Method

Divide the following by box method.

$$1) \frac{x^4 + 7x^3 + 15x^2 + 13x + 4}{x^2 + 2x + 1} = x^2 + 5x + 4$$

	x^2	$5x$	4
x^2	x^4	$5x^3$	$4x^2$
$2x$	$2x^3$	$10x^2$	$8x$
1	x^2		

$$2) \frac{3m^4 - 5m^3 - 15m^2 - 9m - 10}{m^2 - 2m - 5} = 3m^2 + m + 2$$

	$3m^2$	m	2
m^2	$3m^4$	m^3	$2m^2$
$-2m$	$-6m^3$	$-2m^2$	$-4m$
		$-5m$	-10

$$3) \frac{6v^4 - 7v^3 + 19v^2 - 10v + 4}{3v^2 - 2v + 4} = 2v^2 - v + 4$$

	$2v^2$	
$3v^2$	$6v^4$	$-4v^3$
$-2v$	$-4v^3$	$8v^2$
4	$8v^2$	

$$\frac{16}{-c + 4} = c^2 - c + 4$$

	$-c$	4
	$-9c^3$	$36c^2$
	$-c^2$	$4c$
	$-4c$	16

$$5) \frac{8k^4 + 2k^3 + 10k^2 - 19k + 5}{4k^2 - 3k - 2} = 2k^2 + 2k + 5$$

	$2k^2$	$2k$	5
$4k^2$	$8k^4$	$8k^3$	$20k^2$
$-3k$	$-6k^3$	$-6k^2$	$-15k$
-2	$-4k^2$	$-4k$	-10

$$\frac{1p - 8}{p^2 - 2p + 1} = p^2 + 2p + 1$$

	p^2	$2p$	1
p^2	p^4	$2p^3$	p^2
$5p$	$5p^3$	$10p^2$	$5p$
-8	$-8p^2$	$-16p$	-8

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